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Medics knockout ‘prats’ in first round

Several medic cultivars have reduced *Pratylenchus* (root lesion nematode) numbers in the first of a series field trials seeking to unravel what effect pastures have on the root pest.

Research scientist with the SA Research and Development Institute, Rachel Hutton, said the first trial was at Two Wells but the work was now being extended into other cropping soils. Results should start to come in soon from another trial at Maitland, and would hopefully confirm the initial findings.

“Three further trials will be sown in 2004,” Mrs Hutton said.

“This relatively new area of research is seen as very important given the widespread use of medics in cropping rotations. They are valued for providing a disease break, being a source of nitrogen and providing fodder for stock.

“We have found in our work, which began in 1998, that medics can reduce the number of ‘prats’ in the soil, even though at same time, the medic roots may suffer damage.”

Mrs Hutton said the nematode, *Pratylenchus neglectus*, was the principal target of her disease screening work because of its wide distribution and penchant for damaging intolerant crops, particularly in the lower rainfall areas.

“It eats root hairs and burrows into the roots limiting the uptake of water and nutrients, and can also damage legume nodules,” Mrs Hutton said. “One way to reduce its impact is to reduce its numbers, and we wanted to know if pastures can do this for us.

“In a trial at Two Wells four commonly-used medics, after a year’s growth, had reduced nematode numbers by 20 to 50 per cent.

“By comparison the wheat variety Machete, which historically increases nematode numbers, increased nematode numbers four-fold when grown at the site.”

Meanwhile she is recommending that the current classification of medics as being moderately resistant to root lesion nematodes, remains.

“Farmers should be able to use medic in their rotation with some confidence that they will not increase nematodes,” she said.

“Results from field trials at Loxton, Minnipa Agricultural Centre and Smoky Bay in 2004 will provide more information on the ability of more pasture cultivars to reduce the number of prats in different soils.

“At the same time efforts are underway to find medics that suffer less root damage from prats.

Next week – breeding medics to make them more ‘Prat proof.’

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